

**METHOD AND SYSTEM FOR IMPLEMENTING A SYSTEM  
ACQUISITION FUNCTION FOR USE WITH A COMMUNICATION  
DEVICE**

**ABSTRACT OF THE DISCLOSURE**

5           A system for implementing a searcher for use with a communication device is  
provided. According to one aspect of the system, the searcher includes one or more  
computational units which are used to perform a PN sequence generation function to generate  
a sequence of PN codes. The searcher further includes a number of computational units  
10       which are used to correlate received signal samples with the PN codes. As each signal  
sample is received by the communication device, the received signal sample is correlated  
with a first PN sequence in a parallel manner using the computational units. The correlation  
results are then accumulated. As the next signal sample is received, this newly received  
signal sample is similarly correlated with the next PN sequence in a parallel manner.  
15       Likewise, the correlation results are accumulated with the previous correlation results. The  
foregoing process is repeated until all the signal samples needed for correlation are received  
and correlated with sequences of PN codes. According to another aspect of the system, the  
computational units are implemented using adaptive hardware resources. The number of  
computational units which are used to implement the correlation function is adjustable  
depending on, for example, the amount of available adaptive hardware resources.

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